

Title (en)

Wireless local loop terminal and system having high speed, high resolution, digital-to-analog converter with off-line sigma delta conversion and storage

Title (de)

Drahtloses Teilnehmeranschlussendgerät und System mit Hochgeschwindigkeits- und hochauflösendem Digital-Analog-Wandler mit off-line Sigma-Delta Wandlung und Speicherung

Title (fr)

Terminal en boucle local et système sans fil avec convertisseur numérique-analogique à grande vitesse et résolution à conversion sigma-delta et stockage hors ligne

Publication

**EP 1255358 A2 20021106 (EN)**

Application

**EP 02100430 A 20020430**

Priority

US 84644001 A 20010430

Abstract (en)

A wireless local loop apparatus and corresponding system having an improved DAC operable at higher speed than heretofore achievable which exploits the sigma-delta principle in a different way. More particularly, the invention comprises a wireless local loop terminal (302) and corresponding system (300) that implement a digital-to-analog conversion circuit (105) including a storage means (110), such as a read only memory, for storing delta-sigma analog sequences corresponding to all possible values of a digital input (106) coupled to a plurality of one-bit digital to analog converters (120, 122, 124, 126). Each of the digital-to-analog converters (120, 122, 124, 126) are clocked by multi-phase clocks, such that each phase applied to each one of the digital-to-analog converters (120, 122, 124, 126) is delayed with respect to one another by the oversampling period. An summer is coupled to each digital-to-analog converter (120, 122, 124, 126) for summing each output from each digital-to-analog converter (120, 122, 124, 126) to generate an analog output. Hereby, the digital-to-analog conversion circuit (105) according to the invention emulates a delta-sigma digital-to-analog converter having both high speed and high resolution. <IMAGE>

IPC 1-7

**H03M 3/02**; **H04B 14/06**

IPC 8 full level

**H03M 3/02** (2006.01); **H04B 14/06** (2006.01); **H04L 27/00** (2006.01)

CPC (source: EP US)

**H03M 3/50** (2013.01 - EP US); **H04B 14/06** (2013.01 - EP US)

Designated contracting state (EPC)

DE FR GB

DOCDB simple family (publication)

**EP 1255358 A2 20021106**; **EP 1255358 A3 20041124**; **EP 1255358 B1 20080123**; DE 60224749 D1 20080313; DE 60224749 T2 20090122; JP 2003060510 A 20030228; US 2002158784 A1 20021031; US 6489908 B2 20021203

DOCDB simple family (application)

**EP 02100430 A 20020430**; DE 60224749 T 20020430; JP 2002164944 A 20020430; US 84644001 A 20010430